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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/616,028

Filing Date: July 09, 2003

Appellant(s): ADDIS, MARK E.

Barry L. Kelmachter
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10-19-06 appealing from the Office action mailed 5-17-06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,480,165	FLOWER	1-1996
5,496,045	MILLENER et al	3-1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-3, 5, 6, 8, 9, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Flower (5,480,165).

Flower discloses a brush seal comprising a back plate 15, side plate 21, first set of bristles 19, and second set of bristles 17. The first set of bristles 19 has a length greater than the length of the second set. The second set abuts the first set at a point adjacent the joint (near 22) between the plates and substantially along the length of the first set (as seen in Figure 1). The second set 17 are more rigid and have non-interfering lay angles (see Fig. 4).

Regarding claim 6, the range is considered to be disclosed by Flower in that Flower discloses the angles of the bristles can be the same. Thus, the difference would be 0 degrees, which is in the claimed range.

2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flower in view of Millener (5,496,045).

Flower discloses a brush seal comprising a back plate 15, side plate 21, first set of bristles 19, and second set of bristles 17. The first set of bristles 19 has a length greater than the length of the second set. The second set abuts the first set at a point adjacent the joint (near 22) between the plates and substantially along the length of the first set (as seen in Figure 1). The second set 17 are more rigid, do not contact the shaft, and have non-interfering lay angles (see Fig. 4). Flower does not appear to disclose a windage cover attached to the side plate and spaced from the first set of bristles. Millener teaches a brush seal comprising bristles, a back plate, and a front plate. Millener teaches providing a “windage cover” on the front plate 10 to control

lifting forces that disrupt the sealing of the bristles. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the side plate of Flower with a cover as taught by Millener to improve the sealing affect by controlling disruptive lifting forces.

(10) Response to Argument

A.

Appellant argues that Flower does not disclose all of the subject matter in claim 1. The examiner disagrees. It is submitted that Flower's disclosure as a whole sets forth every limitation required by the claim. Appellant has argued that Figures 1 and 6 do not disclose claim 1. However, the disclosure is not limited to only those figures, i.e. there may not be a figure for every possible embodiment. Those figures are examples of possible configurations disclosed by Flower. For clarity: Flower's "second row of bristles 19" is equivalent to Appellant's "first set of bristles." This is the longer of the two sets. Flower's "first row of bristles 17" is equivalent to Appellant's "second set of bristles." This is the shorter of the two sets.

Figure 6, the abstract, and column 2, lines 56-64 (for example) disclose the second set 17 is between the first set 19 and side plate 21, as required by claim 1. Appellant argues that Figure 6 does not meet the limitations of claim 1 because of spacer ring 25. The examiner disagrees. First, Flower discloses that a spacer ring "may" be disposed between the bristles sets (see col. 3, lines 31-33). Thus, the ring is considered optional or an alternative (evidenced by Figure 1, which has no spacer ring). Also, Flower discloses that the bristles lay against and are supported by each other (see column 4, lines 39-40). Regardless, it is submitted that the claim limitations are met even if the spacer ring is present. Flower discloses that the bristles will spread such that

the spacer is lost (see col. 5, lines 15-21). The spacer could be considered part of the “joint” between the plates. And/or, a point just below the spacer is considered “adjacent” to the joint or weld. In other words, the claim does not require the bristles to abut immediately adjacent to the weld that holds the plates together.

Finally, attention is directed to Flower’s claim 3, which clearly anticipates Appellant’s claim 1. Flower’s claim 3 discloses a brush seal having a back plate, side plate, and two rows of bristles. The shorter row of bristles lies against the longer row of bristles and is between the longer row and side plate. There is no mention of a spacer ring in claim 3. In fact, the spacer ring is eventually disclosed in claim 7. This is further evidence that an embodiment such as that shown in Figure 6 can be provided without the spacer ring.

B.

Appellant argues that figures 4 and 5 do not anticipated claims 5 and 6. Again, Flower’s disclosure as a whole sets forth the limitations required by the claims. The figures are just examples of a few possible embodiments. As shown in the figures and described in column 5, lines 25-26, the bristles can lie at different angles. However, the limitation “non-interfering” does not have to imply different angles. Thus, bristle sets with the same angles can be considered “non-interfering lay angles” in that the angle of the bristles do not interfere with the function of the seal. Regarding claim 6, even if the angles were the same, the difference would be 0 degrees, which is in the claimed range.

Appellant argues that Flower does not disclose the second set 17 extending at least to the back plate. The examiner disagrees. As seen in every figure, the second set of bristles 17 (i.e. the shorter set) extends past the length of the back plate 15.

Appellant argues the first set of bristles abuts the side plate, not the back plate. The examiner disagrees. As set forth above, the abstract, figures, disclosure and claims all state that the longer set of bristles 19 (the first set) can abut the back plate.

II.

Appellant argues that claim 10 is allowable because Millener does not overcome the deficiencies of Flower. As set forth above, Flower already discloses the limitations required by claim 1. Millener is applied for its teaching of a windage cover, required by claim 10.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Alison Pickard



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